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Dated: April 25, 2008

Signature:

(Lise Ann Rogers)

Docket No.: CDPC-P01-011
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Re Patent Application of:
English et al.

Application No.: 10/727,139

Confirmation No.: 5324

Filed: December 2, 2003

Art Unit: 2182

For: DISTRIBUTED SYSTEMS FOR
DETERMINING CARD STATUS

Examiner: E. J. Sorrell

APPEAL BRIEF UNDER 37 C.F.R. § 41.37

MS Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This Appeal Brief is submitted in response to the Final Office Action mailed March 26, 2007, and in support of the Notice of Appeal filed on September 25, 2007.

As required under § 41.37(a), this Appeal Brief was due two months after the Notice of Appeal was filed in this case on September 25, 2007. A Petition for Extension of Time extending the time for filing this Appeal Brief by five months to April 25, 2008 is filed concurrently herewith.

The fees required under § 41.20(b)(2), and any required petition for extension of time for filing this brief and fees therefor, are dealt with in the accompanying Transmittal of Appeal Brief.

This Appeal Brief contains the following items as required by 37 C.F.R. § 41.37 and M.P.E.P. § 1205.2:

- I. Real Party In Interest
- II Related Appeals and Interferences

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III.	Status of Claims
IV.	Status of Amendments
V.	Summary of Claimed Subject Matter
VI.	Grounds of Rejection to be Reviewed on Appeal
VII.	Argument
VIII.	Claims
IX.	Conclusion
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Appendix B	Evidence
Appendix C	Related Proceedings

I. REAL PARTY OF INTEREST

Appellants respectfully advise the Board that the real party in interest in the above-identified patent application is Cedar Point Communications, Inc., a corporation organized and existing under the laws of the State of New Hampshire, and having an office and place of business at 16 Route 111, Building 3, Derry, NH 03038, which is the assignee of this application.

II. RELATED APPEALS AND INTERFERENCES

Appellants respectfully advise the Board that there are no other appeals or interferences known to appellants, their legal representative, or their assignee that will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

III. STATUS OF CLAIMS

Claims 1-23 are pending and on appeal in this application. Claims 1-23 were finally rejected in the Final Office Action dated March 26, 2007. Claims 1 and 12 are independent claims; all other pending claims depend upon one or more of the independent claims. No claims have been allowed.

IV. STATUS OF AMENDMENTS

Appellants have not submitted any amendment pursuant to 37 C.F.R. § 1.116 or in the reply to the March 26, 2007 Final Office Action (hereinafter "Office Action"), from which this Appeal is being sought.

V. SUMMARY OF CLAIMED SUBJECT MATTER

Appellants' independent claim 1 includes, but is not limited to, a process for arbitrating between active and protected status, comprising the steps of identifying a plurality of cards capable of communicating with each other, allowing each card to make a determination of the health of another one of the cards, allowing each card to deliver to another of the cards a vote representative of the respective cards determination of the health of the other card, and having a respective card determine as a function of delivered votes a health status representative of whether the card is to be isolated.

Appellants' independent claim 12 includes, but is not limited to, a system for arbitrating between an active state and a protected state, comprising a plurality of cards capable of exchanging data, each having a card monitor for monitoring parameters of other cards in the system representative of operating characteristics, a vote out mechanism, responsive to the monitored parameters, for generating a vote signal representative of an assessment of a card's operating condition, and a vote tally mechanism, responsive to vote signals received from other cards in the system, and capable of changing an operational state of a respective card in response thereto.

Dependent claims 2-11 and 13-23 depend from, and add limitation, to independent claims 1 and 12.

VI. GROUND OF REJECTION TO BE REVIEWED ON APPEAL

The following grounds of rejection are to be reviewed on this appeal:

Whether claims 1-3, 5, 8, and 11 stand rejected under 35 U.S. C. §101, as failing to have a useful, concrete, tangible result.

Whether claims 1-11 stand rejected under 35 U.S. C. §112, second paragraph as failing to particularly point out and distinctly claim the claimed subject matter.

Whether claims 1-4, 6-14, and 16-21 stand rejected under 35 U.S.C. §103(a) over the combination of U.S. Patent No. 3,783,250 to Fletcher et al. (hereinafter "Fletcher") and U.S. Patent No. 6,931,568 to Abbondanzio et al. (hereinafter "Abbondanzio").

Whether claims 5 and 15 stand rejected under 35 U.S.C. §103(a) over the combination of Fletcher, Abbondanzio, and U.S. Patent No. 5,123,089 to Beilinski et al. (hereinafter "Beilinski").

Whether claims 22 and 23 stand rejected under 35 U.S.C. §103(a) over the combination of Fletcher and Abbondanzio, as applied to claim 4, and published U.S. Patent Application 20010021955 to Deng et al. (hereinafter "Deng").

VII. ARGUMENT

A. The Rejection of claims 1-3, 5, 8, and 11 under 35 U.S.C. §101

Claims 1-3, 5, 8, and 11 are finally rejected under 35 U.S. C. §101. Appellants respectfully traverse this rejection and request that it be overturned for at least the reasons set forth below.

The Office Action alleges that "the body of claim [1] concludes with a determination step without actually doing anything with what has been determined" (Action, Page 2).

Appellants point out that claims 1-3, 5, 8, and 11 are directed to statutory processes with the useful, concrete and tangible result of "having a respective card determine as a function of delivered votes a health status representative of whether the card is to be isolated" based, at least, on the "determination of the health of the card" by another. The "determination of the health of a card" may include, among other things, "measuring a response time" or "identifying a parity error." These are concrete and tangible things that are particularly useful for providing "redundancy", and identifying and isolating "malfunctioning cards." Thus, the claims recite useful subject matter with tangible, real-world applications and concrete results.

Furthermore, Appellants note, that as expressly pointed out in Annex II of the Interim Guidelines for Patent Subject Matter Eligibility, In State Street, the Federal Circuit examined some of the prior 35 U.S. C. §101 cases, observing that certain claimed inventions that apply abstract

ideas to produce a useful, concrete and tangible result are proper under 35 U.S. C. §101. The Annex also expressly points out that in determining whether the claim is for a "practical application" the focus is not on whether the steps taken to achieve are "useful, tangible and concrete," but rather that the final result is "useful, tangible and concrete." Thus, the Annex II not only fails to support the asserted position, the Annex II makes expressly clear that the rejection made is improper.

Therefore, Appellants request reconsideration and withdrawal of the 35 U.S. C. §101 Rejections of claims 1-3, 5, 8, and 11, by the Board.

B. The Rejection of Claims 1-11 under 35 U.S.C. §112, second paragraph

Claims 1-11 are finally rejected under 35 U.S. C. §112, second paragraph as failing to particularly point out and distinctly claim the claimed subject matter. Appellants respectfully traverse this rejection and request that it be overturned for at least the reasons set forth below.

The Office Action alleges that the claim "appears to cover anything and everything that does not prohibit...[the]...actions [of allowing and having, as recited in claim 1,] from occurring" and, therefore, the "metes and bounds of the claim" is unclear. Appellants point out that in making this indefiniteness rejection, the Examiner is evidently examining the breadth of claim 1 by stating issues relating to "metes and bounds" and claim coverage. However, as a matter of law, an issue of the breadth of a claim cannot be equated with indefiniteness.

MPEP §2173.04

"Breadth of a claim is not to be equated with indefiniteness. In re Miller, 441 F.2d 689, 169 USPQ 597 (CCPA 1971). If the scope of the subject matter embraced by the claims is clear, and if applicants have not otherwise indicated that they intend the invention to be of a scope different from that defined in the claims, then the claims comply with 35 U.S.C. §112, second paragraph."

Claim 1 is directed to a process for arbitrating between active and protected status. The process includes allowing each card to make a determination of the health of another card and allowing each card to deliver a vote, representative of the determination of health. The process also includes having the card determine, as a function of the delivered votes whether it is to be isolated. Appellants submit that the scope of the subject matter embraced by the claim is clear, more so in light of the specification.

The Examiner has erred as a matter of law in rejecting claim 1 under 35 U.S.C. §112, second paragraph since the breadth of a claim is not indefiniteness. Furthermore, the MPEP in §2111 states that "during patent examination, the pending claims must be given broadest reasonable interpretation consistent with the specification."

Accordingly, Appellants respectfully request the Board's reconsideration and withdrawal of the Rejection of claim 1 under 35 U.S.C. §112, second paragraph. Since claims 2-11 depend from, and add limitations to, claim 1, Appellants respectfully request reconsideration and withdrawal of the Rejections of claims 2-11 under 35 U.S.C. §112, second paragraph.

C. The Rejection of Claims 1-4, 6-14, and 16-21 under 35 U.S.C. §103(a)

Claims 1-4, 6-14, and 16-21 are finally rejected under 35 U.S.C. §103(a) as being unpatentable over the combination of Fletcher and Abbondanzio. Appellants respectfully traverse this rejection and request that it be overturned for at least the reasons set forth below.

For an office action to establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious. In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). MPEP § 2143.

Claim 1 is directed to a process for arbitrating between active and protected status. The process includes allowing each card to make a determination of the health of another card and allowing each card to deliver a vote representative of the respective cards determination of health of the other card. The process also includes having a respective card determine, as a function of the delivered votes a health status representative of whether it is to be isolated.

Fletcher in combination with Abbondanzio does not teach or suggest a process for arbitrating between an active state and protected state as recited in base claim 1. Fletcher is directed to an "adaptive control apparatus for interconnecting operational units of a plurality of self-testing computer modules with a data bus while excluding failed computer modules from communication with the bus." (See Col. 1, Lines 40-44; Col. 3, Lines 33-35). Abbondanzio is directed to a system having redundant service processors and to a method of managing the service processors when one fails.

The Examiner states that "Fletcher fails to teach that each computer module is implemented as a card." The Examiner further states that Abbondanzio "teaches...computer modules implemented as cards." However, even if one were to combine Fletcher and Abbondanzio, as suggested by the Examiner, to provide a system having computer modules that are cards, these computer modules of Fletcher, by itself, are not capable of determining a health status indicating whether a card is to be isolated.

The Examiner has erred in his rejection of claim 1 because he fails to recognize that Fletcher merely teaches a control apparatus separate from the computer modules that excludes failed computers modules from communicating with the bus. Therefore, it is this separate control apparatus and not the computer modules itself that excludes failed computer modules from communicating with the data bus.

In contrast, "the card" recited in claim 1, itself determines a health status representative of whether it is to be isolated. Thus, the gap between Fletcher and the claimed subject matter is larger than admitted.

Therefore, Fletcher taken alone, or in combination with Abbondanzio, does not teach or suggest each and every element in independent claim 1.

Even assuming arguendo that Fletcher's computer module, adaptive control apparatus, VCS and IOP were all implemented within each computer module and considered as single combined card. Nowhere in Fletcher is there any teaching or suggestion for implementing any of these components within each of the computer modules, as admitted in the Action. Fletcher in combination with Abbondanzio still does not teach or suggest the process as recited in claims 1-11.

In particular, each of Fletcher's hypothetically combined cards may determine (through the "adaptive control apparatus") if another one of the combined cards have failed. (See Col. 1, Lines 60-61). Based on this determination of the failure status of the other cards, a vote for an "interconnection mode" for the system might be "transmitted" from the combined card (by the VCS) to the data bus. (See Col. 40, Lines 26-32). The interconnection mode is the "configuration [of the computer modules] with the data bus." For example, interconnection modes for four computer modules include "four-way voting" where all four computers are considered operational, "three-way voting" where three computers are operational and one computer is standby/failed, etc. (See Col. 1, Lines 55-68 to Col. 2, Lines 1-5). Similarly, each of the combined cards might provide a vote for an interconnection mode based on their determination of the status of the other cards. The combined cards, in communication with each other, determine a majority selected interconnection mode based on votes provided by each of the cards. The majority vote determines if a card is to be "disregarded" or not. (See Col. 39, Lines 54-60; Col. 40, Lines 29-45).

In contrast, claim 1 recites "having a respective card determine as a function of delivered votes a health status representative of whether the card is to be isolated." Fletcher in combination with Abbondanzio does not teach having a card determine for itself whether the votes received from

the other cards indicate it is to be isolated. Instead, Fletcher teaches all the cards coming to a majority consensus regarding the mode of operation of the system and then "disregarding" a card based on the decision reached by the system level consensus decision. Each card in Fletcher does not determine based on the votes of other cards whether it needs to be isolated.

The Examiner has erred in his Rejection of claim 1 because he fails to recognize the step of having a respective card determine as a function of delivered votes a health status representative of whether the card is to be isolated because this step is absent from the combined applied art. And yet it is expressly stated material of claim 1.

Further, the system disclosed by Fletcher is of the type mentioned in the background of Appellants' disclosure, that requires a decision to be made by systems that are, by nature, failing. As noted in the background, prior art fail safe techniques have employed system level processes that transition a malfunctioning card out of the system. In contrast, Appellants' system will, at the respective card level, have a card transition itself out of the system. Appellants' system would not require, as Fletcher requires, a failing system to process an instruction generated from a consensus level system vote to take itself offline. This reduces complexity and provides more on board control to the isolation system on each respective card.

Therefore, Fletcher, alone or in combination, with Abbondanzio does not teach "having a respective card determine as a function of delivered votes a health status representative of whether the card is to be isolated."

In view of the above remarks, neither Fletcher nor Abbondanzio, alone or in combination, teaches or suggests each and every element of base claim 1. Therefore, Appellants respectfully request reconsideration and withdrawal by the Board of the 35 U.S.C §103 (a) Rejection of base claim 1. Because claims 2-4, 6-11, and 21 depend from, and are limited by, base claim 1 and add further limitations thereto, and Fletcher and Abbondanzio, alone or in combination, do not teach or suggest each and every element of these claims, the 35 U.S.C. §103 (a) Rejections of these claims should also be reconsidered and withdrawn.

The Examiner has erred in his Rejection of claim 12 because nothing in either Fletcher or Abbondanzio teaches or suggests a vote tally mechanism that is capable of changing an operational state of a card in response to vote signals received from a card in the system. In particular, Fletcher and/or Abbondanzio do not teach or suggest a "vote tally mechanism" as recited in the claim. The "vote tally mechanism" in claim 12 is "responsive to vote signals received from a card in the system" and is "capable of changing an operational state of card in response thereto."

Furthermore, as noted in our foregoing arguments, Fletcher and Abbondanzio do not teach or suggest "having a card determine as a function of votes received from the other cards whether it is to be isolated." Fletcher teaches a system having components that is not capable of changing the operational state of the card in response to a vote. Instead, the system in Fletcher reaches a majority conclusion about the operational state of a computer module and then "disregards" the computer module if it was decided to have failed.

Thus, Fletcher nor Abbondanzio, alone or in combination, teaches or suggests each and every element of base claim 12, and therefore Appellants respectfully request the Board's reconsideration and withdrawal of the 35 U.S.C. §103 (a) Rejection of claim 12. Because claims 13-14 and 16-20 depend from, and are limited by, claim 12, and Fletcher and Abbondanzio, alone or in combination, do not teach or suggest each and every element of these claims, the 35 U.S.C. §103 (a) Rejections of these claims should also be withdrawn.

D. The Rejection of Claims 5 and 15 under 35 U.S.C. §103(a)

Claims 5 and 15 are finally rejected under 35 U.S.C. §103(a) as being unpatentable over the combination of Fletcher, Abbondanzio, and Beilinski. Appellants respectfully traverse this rejection and request that it be overturned for at least the reasons set forth below.

For an office action to establish a prima facie case of obviousness against a claim, the prior art reference or references used to form the rejection must, either alone or in combination, teach or suggest all the claim limitations. MPEP § 2143.

The combination of Beilinski with Fletcher and Abbondanzio fails to teach all of the elements of independent claims 1 and 12, and dependent claims 5 and 15. Furthermore, because claims 5 and 15 depend from, and are limited by, base claims 1 and 12, respectively, for at least the reasons cited above, Appellants respectfully request the Board's reconsideration and withdrawal of the 35 U.S.C. §103 (a) Rejections of these claims.

E. The Rejection of Claims 22 and 23 under 35 U.S.C. §103(a)

Claims 22 and 23 are finally rejected under 35 U.S.C. §103(a) as being unpatentable over the combination of Fletcher, Abbondanzio, and Deng. Appellants respectfully traverse this rejection and request that it be overturned for at least the reasons set forth below.

For an office action to establish a prima facie case of obviousness against a claim, the prior art reference or references used to form the rejection must, either alone or in combination, teach or suggest all the claim limitations. MPEP § 2143.

The combination of Deng with Fletcher and Abbondanzio fails to teach all of the elements of independent claim 1 and dependent claims 22 and 23. Furthermore, because claims 22 and 23 depend from, and are limited by, base claim 1, for at least the reasons cited above, Appellants respectfully request the Board's reconsideration and withdrawal of the 35 U.S.C. §103 (a) Rejections of these claims.

VIII. CLAIMS

A copy of the claims involved in the present appeal is attached hereto as Appendix A. As indicated above, the claims in Appendix A include the amendments filed by Applicant on December 6, 2006 in response to a Non-Final Office Action.

IX. CONCLUSION

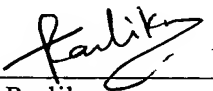
Claims 1 and 12 are patentable over the references of record. Claims 2-11, and 13-23, as dependent claims, are also patentable for at least the reasons that claims 1 and 12 are patentable. Appellants respectfully urge that the final rejection be reversed and that all pending claims be allowed.

Appellants authorize the Commissioner to withdraw the extension of time fee from Deposit Account 18-1945, under Order No. CDPC-P01-011. If there are any other fees not accounted for, Appellants authorize the Commissioner to charge the fee to Deposit Account 18-1945, under Order No. CDPC-P01-011.

If there are any questions after reviewing this paper, the Examiner is invited to contact the undersigned at (617) 951-7000.

Dated: April 25, 2008

Respectfully submitted,

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APPENDIX A (CLAIMS)

1. A process for arbitrating between active and protected status, comprising the steps of
identifying a plurality of cards capable of communicating with each other, allowing
each card to make a determination of the health of another one of the
cards,
allowing each card to deliver to another of the cards a vote representative of the
respective cards determination of the health of the other card, and
having a respective card determine as a function of delivered votes a health status
representative of whether the card is to be isolated.
2. A process according to claim 1, wherein determining as a function of delivered votes
includes determining as a function of a majority of votes.
3. A process according to claim 1, wherein determining as a function of delivered votes
includes determining as a function of a plurality of votes.
4. A process according to claim 1, further comprising isolating a card as a function of delivered
votes.
5. A process according to claim 1, wherein making a determination of the health of a card
includes measuring response time, identifying a parity error, identifying a check sum error,
and identifying a failure to respond to a command.
6. A process according to claim 4, wherein isolating a card includes entering a state that
prevents the card from exchanging data.
7. A process according to claim 4, wherein isolating a card includes disabling a hardware
interface to an external system bus.

8. A process according to claim 1, further comprising a self-diagnostic test for having a card monitor local parameters to determine a health status for the respective card.
9. A process according to claim 7, further comprising determining an isolation state in response to the self-diagnostic test.
10. A process according to claim 7, wherein the self-diagnostic test includes monitoring a heartbeat timer.
11. A process according to claim 1, further comprising the step of monitoring a control signal representative of an instruction to adjust between a protection state and an active state.
12. A system for arbitrating between an active state and a protected state, comprising
 - a plurality of cards capable of exchanging data, each having
 - a card monitor for monitoring parameters of other cards in the system representative of operating characteristics,
 - a vote out mechanism, responsive to the monitored parameters, for generating a vote signal representative of an assessment of a card's operating condition, and
 - a vote tally mechanism, responsive to vote signals received from other cards in the system, and capable of changing an operational state of a respective card in response thereto.
13. A system according to claim 12, wherein the vote tally mechanism includes a processor for detecting a majority vote with vote signals received.
14. A system according to claim 12, comprising
 - an isolation processor for isolating the card as a function of delivered votes.
15. A system according to claim 12, wherein the card monitor includes means for measuring a response time of a card.

16. A system according to claim 12, wherein the card monitor includes means for detecting an error in a data signal received from a card.
17. A system according to claim 12, further comprising a lock circuit for requiring a processor to perform a series of predetermined operations to gain access to a memory location.
18. A system according to claim 12, further comprising a self-diagnostic process for testing local parameters representative of local status.
19. A system according to claim 18, wherein the self-diagnostic process includes means for altering a state of the card.
20. A system according to claim 18, wherein the self-diagnostic process includes means for driving a card into an isolation state.
21. A process according to claim 4, wherein isolating a card includes disabling an interface that allows the isolated card to deliver the vote representative of the isolated cards determination of the health of another one of the cards.
22. A process according to claim 1, comprising
 - adding a card to the plurality of cards, and
 - preventing the addition of the card from interfering with the steps of identifying a plurality of cards, allowing each card to make a determination, allowing each card to deliver, and having the respective card determine a health status.
23. A process according to claim 1, comprising
 - removing a card from the plurality of cards, and
 - preventing the removal of the card from interfering with the steps of identifying a

plurality of cards, allowing each card to make a determination, allowing each card to deliver, and having the respective card determine a health status.

APPENDIX B (EVIDENCE)

None.

APPENDIX C (RELATED PROCEEDINGS)

No related proceedings are referenced in II. above, hence copies of decisions in related proceedings are not provided.